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ITW 1623

PTO/SB/21 (08-03)

Approved for use through 08/30/2003. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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<b>TRANSMITTAL FORM</b> (to be used for all correspondence after initial filing)	Application Number	10/056,121	
	Filing Date	01/23/2002	
	First Named Inventor	Wellinghoff	
	Art Unit	1623	
	Examiner Name	Killos, P.	
Total Number of Pages in This Submission	7+	Attorney Docket Number	SWRI-2835-07

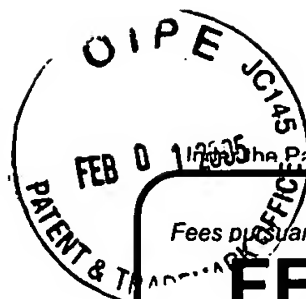
ENCLOSURES (Check all that apply)		
<input checked="" type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance communication to Technology Center (TC)
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
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<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<b>Remarks</b> The Commissioner is hereby authorized to charge any additional fees or credit any overpayments to Deposit Account No. 50-0997 (SWRI-2835-07), maintained by Paula D. Morris & Associates, P.C. d/b/a The Morris Law Firm, P.C.	

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Paula D. Morris, Reg. No. 31,516
Signature	<i>Paula D. Morris</i>
Date	2-1-05

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Effective on 12/08/2004.

Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

# FEE TRANSMITTAL

## For FY 2005

☒ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) \$180.00

**Complete if Known**

Application Number	10/056,121
Filing Date	1-23-2002
First Named Inventor	Wellinghoff, et al.
Examiner Name	Killos
Art Unit	1623
Attorney Docket No.	SWRI-2835-07

**METHOD OF PAYMENT (check all that apply)**

☐ Check ☒ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): \_\_\_\_\_

☒ Deposit Account Deposit Account Number: <sup>50-0997</sup> (SWRI-2835-07) Deposit Account Name: **Paula Morris & Associates**

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

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☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

**WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.**FEE CALCULATION****1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	790	395	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

**2. EXCESS CLAIM FEES**

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
0 - 20 or HP = 9	x 50	= 0	

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)
0 - 3 or HP = 0	x 200	= 0	

HP = highest number of independent claims paid for, if greater than 3.

Multiple Dependent Claims	Fee (\$)	Fee Paid (\$)

**3. APPLICATION SIZE FEE**

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 =	/ 50 =	(round up to a whole number) x	=	

**4. OTHER FEE(S)**

Non-English Specification, \$130 fee (no small entity discount)

Other (e.g., late filing surcharge): Supplemental Information Disclosure Statement

Fees Paid (\$)

\$180.00

**SUBMITTED BY**

Signature	<i>Paula Morris</i>	Registration No. (Attorney/Agent) 31,516	Telephone 713.334.5151
Name (Print/Type)	Paula D. Morris	Date	2-1-05

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Applicant: Wellinghoff, et al.

Group Art Unit: 1623

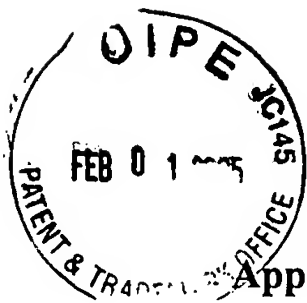
Serial No.: 10/056,121

Examiner: Killos

Filing Date: 1-23-2002

Atty. Docket No.: SWRI-2835-07

Title: Novel Mesogens



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Wellinghoff, et al.

Group Art Unit: 1623

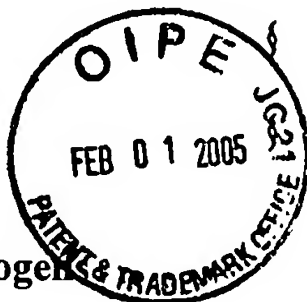
Serial No.: 10/056,121

Examiner: Killos

Filed: 01/23/2002

Atty. Docket No.: SWRI-2835-07  
(previously 2835-04)

Title: Novel Mesogen



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**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

Dear Sir:

In compliance with the duty of disclosure under 37 C.F.R. § 1.56, it is respectfully requested that this Supplemental Information Disclosure Statement be entered and the references listed on the attached Forms PTO/SB/08A and PTO/SB/08B be considered by the Examiner and made of record.

This Supplemental Information Disclosure Statement is not to be considered as a representation that a search has been made or that no other material information as defined under 37 C.F.R. § 1.56 exists.

We hereby authorize the Commissioner to charge our credit card as indicated on Form PTO-2038, for the amount of \$180.00 as required under 37 CFR 1.17(p). The commissioner is hereby authorized to charge any additional fees or credit any overpayment to Deposit Account No. 50-0997 (SWRI-2835-07), maintained by Paula D. Morris & Associates, P.C. d/b/a The Morris Law Firm, P.C..

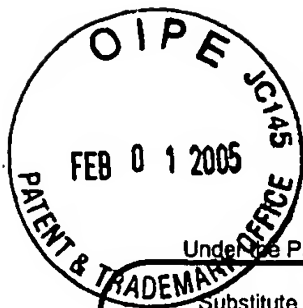
02/07/2005 BABRAHA1 00000018 10056121

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180.00 DP

Respectfully submitted,

Paula D. Morris, Registration No. 31,516  
Paula D. Morris & Associates, PC  
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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 6

### Complete if Known

Application Number	10/056,121
Filing Date	01-23-2002
First Named Inventor	Wellinghoff
Art Unit	1623
Examiner Name	Killos
Attorney Docket Number	SwRI-2835-07

### U. S. PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
		US- 5,808,108	09-15-98	Chappelow, et al.	
		US- 2004/0144954 A1	07-29-2004	Wellinghoff	
		US- 4,914,221	04-03-1990	Winkler, et al.	
		US- 6,204,302	03-20-2001	Rawls, et al.	
		US- 2002/0036285 A1	03-28-2002	Prechtl, et al.	
		US- 6,699,405 B2	03-02-2004	Prechtl, et al.	
		US- 6,194,481 B1	02-27-2001	Furman, et al.	
		US- 2003/0055280 A1	03-20-2003	Wellinghoff, et al.	
		US- 2003/0036609 A1	02-20-2003	Wellinghoff, et al.	
		US- 2003/0168633 A1	09-11-2003	Wellinghoff, et al.	
		US- 5,624,976	04-29-1997	Klee	
		US- 6,649,230	11-18-2003	Seiberle, et al.	
		US- 2004/0199004	10-07-2004	Wellinghoff, et al.	
		US- 4,201,856	05-06-1980	Jackson Jr	
		US- 6,303,050	10-16-2001	Dannenhauer, et al.	
		US- 2002/0013382	01-31-2002	Furman, et al.	
		US- 6,696,585	02-24-2004	Wellinghoff, et al.	
		US- 6,743,936	06-01-2004	Wellinghoff, et al.	
		US- 6,410,765	06-25-2002	Wellinghoff, et al.	

### FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	T <sup>6</sup>
		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				
		WO 02/070543 A2	09-12-2002	Univ. of Texas		
		EP 0159887 A2	10-30-1985	Minnesota Min		
		WO 79/01040	11-29-1979	Eastman Kodak		
		WO 94/16129	07-21-1994	PPG Industries		
		EP 0 242 278 A2	10-21-1987	U. of Illinois		

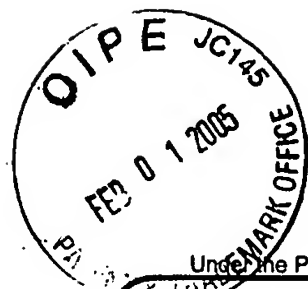
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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 2 of 6

### Complete if Known

Application Number	10/056,121
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Art Unit	1623
Examiner Name	Killos
Attorney Docket Number	SwRI-2835-07

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		Number-Kind Code <sup>2</sup> (if known)			
		US- 6,695,617	02-24-2002	Wellinghoff, et al.	
		US- 6,417,244	07-09-2002	Wellinghoff, et al.	
		US- 6,414,092	07-02-2002	Coates	
		US- 2003/0125435 A1	07-03-2003	Norling	
		US- 5,024,850	06-18-1991	Broer	
		US- 6,291,035	09-18-2001	Verrall	
		US- 6,217,955	04-17-2001	Coates	
		US- 6,217,792	04-17-2001	Parri	
		US- 6,117,920	09-12-2000	Jolliffe	
		US- 6,144,428	11-07-2000	Schadt	
		US- 2002/0177727 A1	11-28-2002	Wellinghoff	
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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)				

Examiner  
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Sheet	3	of	6	Attorney Docket Number	SwRI-2835-07

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		CHOI, Rheological studies on sterically stabilized model dispersions of uniform colloidal spheres. II. Steady-shear viscosity, J. Colloid Interface Science., September 1986, pp. 101-113, Vol. 113(1), Academic Press, Inc.	
		CONDON, Reduction of composite contraction stress through non-bonded microfiller particles, Dental Materials, July 1998, pp. 256-260, Vol. 14.	
		HELLWIG, Influence of an incremental application technique on the polymerization of two light-activated dental composite filling materials, Dtsch. Zahnaerztl Z., 1991, pp. 270-273, Vol. 46.	
		HIKMET, Anisotropic polymerization shrinkage behavior of liquid-crystalline diacrylates, Polymer, 1992, pp. 89-95, Vol. 33(1), Butterworth-Heinemann Ltd.	
		NORLING ET AL, Polymerizable nematic liquid crystal monomers for reduced shrinkage restorative resins, Proc. 17th Southern Biomed. Eng. Conf., 1998, p. 120.	
		LIU, Constant-volume polymerization of composites by addition of ammonia-modified montmorillonite, American Journal of Dentistry, April 1990, pp. 44-50, Vol. 3(2).	
		MILLICH, Elements of light-cured epoxy based dental polymer systems, J. Dent. Res., April 1998, pp. 603-608, Vol. 77(4).	
		RAWLS ET AL, Low Shrinkage resins from liquid crystal diacrylate monomers, ACS Polymer Preprints, September 1997, pp. 167-168, Vol. 38(2).	
		STANSBURY ET AL, Cyclopolymerizable Monomers for use in dental resin composites, J. Dent. Res., March 1990, pp. 844-848, Vol. 69(3).	
		UNO ET AL, Marginal adaptation of a restorative resin polymerized at reduced rate, Scand. J. Dent. Res., 1991, pp. 440-444, Vol. 99(5).	

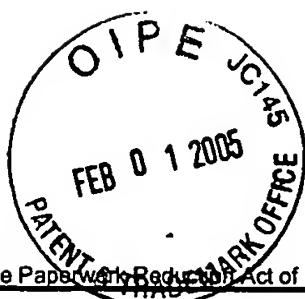
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		<b>Examiner Name</b>	Killos		
<b>Sheet</b>	4	<b>of</b>	6	<b>Attorney Docket Number</b>	SwRI-2835-07

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		HOLMBERG, Ester Synthesis with Dicyclohexycarbodiimide Improved by Acid Catalysts, Acta Chemica Scandinavica, 1979, pp. 410-412, Vol. B 33.	
		NAKAMURA, Characterization of Epitaxially Grown ZnS : Mn Films on a GaAs(100) Substrate prepared by the Hot-wall Epitaxy Technique, J. Mater. Chem., 1991, pp. 357-359, Vol. 1(3).	
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<b>Examiner Signature</b>		<b>Date Considered</b>	
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		Application Number	10/056,121		
		Filing Date	01-23-2002		
		First Named Inventor	Wellinghoff		
		Art Unit	1623		
		Examiner Name	Killos		
Sheet	5	of	6	Attorney Docket Number	SwRI-2835-07

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		MEEK, Inertness of Tetrachlorofulvenes in the Diels-Alder Reaction, J. Org. Chem., January 9, 1958, pp. 1708-1710, Vol. 22 (12), The American Chemical Society.	
		SUZUKI ET AL, Preparation of poly(dimethylsiloxane) macromonomers by the initiator method: 2. Polymerization mechanism, Polymer, 1989, pp. 333-337, Vol. 30(2), Butterworth	
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		NORLING ET AL, Cure shrinkage of experimental LC monomer based composite resins, Abstract, American Association for Dental Research meeting, 2001, Chicago, IL.	
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		LOGAN ET AL, Effect of Silanation on Mechanical Properties of Homogeneous Nanofilled resins, Abstract, American Association for Dental Research meeting, 2001, Chicago, IL.	
		NORLING ET AL, Synthesis of a new low shrinkage liquid crystal monomer, Abstract, American Association for Dental Research meeting, 2000, Washington, D.C.	
		FURMAN ET AL, A Radiopaque Zirconia Microfiller for Translucent Composite Restoratives, Abstract, American Association for Dental Research meeting, 2000, Washington, D.C.	
		GENG, Targeted Drug Release by a Novel Polymeric Device Based on EVA (Ethylene Vinyl Acetate) For Periodontal Condition, (ABSTRACT).	

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		BOLAND ET AL, Cell Survival and Cytokine Expression by Dental Cells Treated with a Liquid Crystal Resin Monomer, J. Dent. Res., 2001, pp. 151 (Abstract 928), Vol. 80.	
		WANG, Rheological Properties of Dental Composites, (ABSTRACT).	
		WELLINGHOFF ET AL, Reduced Shrinkage dimethacrylate liquid crystal resins, J. Den. Res. 1997, pp. 279 (Abstract 2127), Vol. 76.	
		NORLING ET AL, Cure shrinkage of composite resins and an experimental LC monomer, J. Dent. Res., 1999, pp. 233 (Abstract 1020), Vol. 78.	
		PANYAYONG, Effects of Corn-Starched & Primer Additions on Mechanical Properties of Provisional Dental Resin, (ABSTRACT).	

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